MATERIAL SAFETY DATA SHEET

BIO SPOT ACTIVE CARE FLEA & TICK SPRAY FOR CATS & KITTENS

Manufacturer:	Central Garden & Pet Company	
Address:	1501 East Woodfield Road, Suite 200 West, Schaumburg, IL 60173	
Emergency Phone:	1-888-914-2082	
Transportation Emergency Phone:	CHEMTREC: 1-800-424-9300	

1. CHEMICAL PRODUCT INFORMATION

Product Name:	Bio Spot Active Care Flea & Tick Spray for Cats & Kittens
Chemical Name/Synonym:	Etofenprox: 2-(4-ethoxyphenyl)-2-methylpropyl-3-phenoxybenzyl ether, (S)-Methoprene; isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4- Dodecadienoate, Piperonyl Butoxide; 5-[2-(2-butoxyethoxy)ethoxymethyl]- 6-propyl-1,3-benzodioxole
Chemical Family:	Pyrethroid, Terpenoid, Benzodioxole
Formula:	$C_{25}H_{28}O_{3,}\ C_{19}H_{34}O_{3,}\ C_{19}H_{30}O_{5}$
EPA Registration No.:	2724-797-89459
RF Number:	RF2063

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component (chemical, common name)	<u>CAS</u> Number	<u>Weight</u>	<u>Tolerance</u>
Etofenprox: 2-(4-ethoxyphenyl)-2-methylpropyl-3-phenoxybenzyl ether	80844-07-1	0.5%	Not established
(S)-Methoprene; isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-Dodecadienoate	65733-16-6	0.27%	Not Established
Piperonyl Butoxide; 5-[2-(2-butoxyethoxy)ethoxymethyl]- 6-propyl-1,3-benzodioxole	51-03-6	1.75%	Not Established
Inert ingredients: (nonhazardous and/or trade secret)		97.48%	

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENTS KEEP OUT OF REACH OF CHILDREN HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

CAUSES MODERATE EYE IRRITATION. AVOID CONTACT WITH EYES OR CLOTHING. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO, OR USING THE TOILET. REPEATED EXPOSURE TO ETOFENPROX CAN CAUSE SKIN IRRITATION.

PRIMARY ROUTE OF E	ENTRY <u>De</u>	r <u>mal/Eye:</u> Yes	<u>Oral:</u>	No	Inhalation:	Yes
ACUTE TOXICITY	Oral:	No specific haz	ard identified			
	Dermal:	No specific haz	ard identified			
	Inhalation:	No specific haz	ard identified			

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OTHER TOXICOLOGICAL INFORMATION

Skin Irritation:	Slight skin irritant
Eye Irritation:	Moderate eye irritant
Sensitizer:	Not a skin sensitizer

4. FIRST AID MEASURES

- If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.
 - Call a poison control center or doctor for treatment advice.

5. FIRE FIGHTING MEASURES

NFPA Rating:	Health: 1 Fire: 2 Reactivity: 0		
Flammability Class:	Combustible Liquid		
Flash Point:	41.8 °C (107.24°F)		
Explosive Limits (% of Volume):	UEL: 3 ; LEL:12 (Based on 1-methoxy – 2 –propanol)		
Extinguishing Media:	Dry chemical, CO2, Alcohol foam, or water spray		
Special Protective Equipment:	Firefighters should wear full protective clothing including self-contained breathing apparatus.		
Fire Fighting Procedures:	Normal procedures. Do not allow fire fighting water to escape into water-ways or sewers.		
Combustion Products:	Incomplete combustion may produce carbon monoxide		
Unusual Fire/Explosion Hazards:	None known		
6. ACCIDENTAL RELEASE MEASUR	ES		
Steps to be taken:	Do not allow spill to enter waterways inhabited by aquatic organisms. Soak up with abacthent material and place is container for dispessel		
	with absorbent material and place in container for disposal.		
Absorbents:	Clay granules, sawdust, dirt or equivalent.		
Absorbents: Incompatibles:			
	Clay granules, sawdust, dirt or equivalent.		
Incompatibles:	Clay granules, sawdust, dirt or equivalent.		
Incompatibles: 7. HANDLING AND STORAGE	Clay granules, sawdust, dirt or equivalent. Strong oxidizers Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and		
Incompatibles: 7. HANDLING AND STORAGE Handling:	Clay granules, sawdust, dirt or equivalent. Strong oxidizers Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Do not store near heat or open flame. Store away from children and animals.		
Incompatibles: 7. HANDLING AND STORAGE Handling: Storage:	Clay granules, sawdust, dirt or equivalent. Strong oxidizers Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Do not store near heat or open flame. Store away from children and animals.		

Personal Protective Equipment: Use appropriate protective equipment to prevent contact with eyes, clothing and skin, including chemical resistant gloves and protective eyewear. If ventilation is inadequate to control airborne vapor concentrations below recommended exposure limits, respiratory protection may be necessary. End users of this product should consult product labeling for personal protective equipment recommendations.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Clear liquid
Boiling Point:	N/A
Melting Point:	N/A
Vapor Pressure (mm Hg):	N/A
Vapor Density (Air = 1):	N/A
Specific Gravity:	N/A
Bulk Density:	0.9544 g/ml at 20 ° C
Solubility:	Miscible with water
Evaporation Rate:	N/A
pH:	6.38 @25 ℃

10. STABILITY AND REACTIVITY

Stability:	Stable
Reactivity:	N/A
Incompatibility w/ Other Materials:	N/A
Decomposition Products:	N/A
Hazardous Polymerization:	Will not occur

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Acute oral toxicity: LD50 >5,000 mg/kg Acute dermal toxicity: LD50 >5,000 mg/kg Skin irritation: Slightly irritatiing Eye irritation: Moderately irritating Not a dermal sensitizer

CHRONIC TOXICITY [Specific to Active Ingredient(s)]

Methoprene is not considered a carcinogen. The NOEL for non-carcinogenic effects in an 18 month mouse study was 250 ppm.

Etofenprox is not listed as a carcinogen by NTP or IARC and is not regulated by OSHA.

In rats the target organs are the liver and thyroid. The NOAEL for chronic toxicity is 3.7 mg/kg/day for male rats. The target organ in mice is the kidney. The NOAEL is 3.1 mg/kg/day for mice.

Piperonyl butoxide: An increase in the number of benign liver tumors in mice fed piperonyl butoxide technical at doses which far exceeded any anticipated daily human intake. Independent and industry toxicology experts have reviewed the data and agree that the findings of the study do not indicate a health risk to humans.

Carcinogenicity: NTP: No IARC: No OSHA: No

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Specific to Active Ingredient(s)]

Methoprene is not a teratogen. The NOEL for maternal and embryo toxicity in rabbits was 200 mg/kg/day. The NOEL for reproductive effects in rats was 2500 ppm.

Etofenprox is not a teratogen. It is does not have adverse effects on reproduction.

Piperonyl butoxide: There were no birth defects or adverse effects on reproductive parameters in tests with rats or rabbits. It is not considered to be teratogenic.

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<u>MUTAGENICITY</u> [Specific to Active Ingredient(s)] Methoprene is not a mutagen.

Etofenprox is not a mutagen.

Piperonyl butoxide is not genotoxic in several tests including the Ames mutagenicity assay, chromosome aberrations in Chinese hamster ovary (CHO) cells, CHO/HGPRT assay with S9 activation, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

12. ECOLOGICAL INFORMATION

ECOTOXICITY [Active Ingredients Only]

Methoprene

methoprene	Acute Toxicity:	Fish: LC50 (trout): 760 ppb, (bluegill): > 370 ppb ((S)-Methoprene); Aquatic invertebrates: LC50 (Daphnia): 360 ppb ((S)-Methoprene)
Etofenprox	Acute Toxicity:	Rainbow trout : $LC_{50} = 3.3 \text{ ppb}$ Bluegil I: $LC_{50} = 8.5 \text{ ppb}$
Piperonyl butoxide	Acute Toxicity:	Rainbow trout: $LC_{50} = 6.12 \text{ ppm}$ Bluegill: $LC_{50} = 8.5 \text{ ppb} 5.37 \text{ ppm}$ Sheepshead minnow: $LC_{50} = 3.94 \text{ ppm}$ Mysid shrimp: $LC_{50} = 0.32 \text{ ppm}$

13. DISPOSAL CONSIDERATIONS

Wastes resulting from use of this product should be disposed of in accordance with all federal, state and local requirements. For additional regulatory information, see section 15 of this document.

14. TRANSPORT	INFORMATION
14. IKANSFUKI	INFORMATION

DOT49CFR Description:	NOT REGULATED VIA HIGHWAY OR RAIL	
	Consumer Commodity ORM-D-AIR Air transport within U.S.	

Freight Classification: Insecticides Spray

15. REGULATORY INFORMATION

CERCLA (Superfund): Not regulated

RCRA: Regulated due to ignitability

SARA 311/312 HAZARD CATEGORIES

Immediate Health:	Yes (irritant)
Delayed Health:	No
Fire:	Yes
Sudden Pressure:	No
Reactivity:	No

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.